



Tarleton State University
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Buffalo Creek

Recreational Use Attainability Analysis Summary of Findings

Texas Institute for Applied Environmental Research
Stephenville, Texas



June 10, 2014



Project Partners

- Texas State Soil and Water Conservation Board (TSSWCB)
- Texas Institute for Applied Environmental Research (TIAER)



TSSWCB

- Provide state oversight
- Management and coordination of project activities
 - Project partners
 - Texas Commission on Environmental Quality (TCEQ)
- Provide project funding



TIAER

- Project administration
- Develop & maintain stakeholder relations
- Perform RUAA survey activities
- GIS inventory
- Facilitate meetings
- Develop final technical reports



Why we are here

- Texas 303 (d) List of Impaired Water bodies
 - Developed by TCEQ to summarize the condition of the state's surface waters, including concerns for public health, fitness for use by aquatic species and other wildlife, and specific pollutants and their possible sources.



Bacteria Impairment

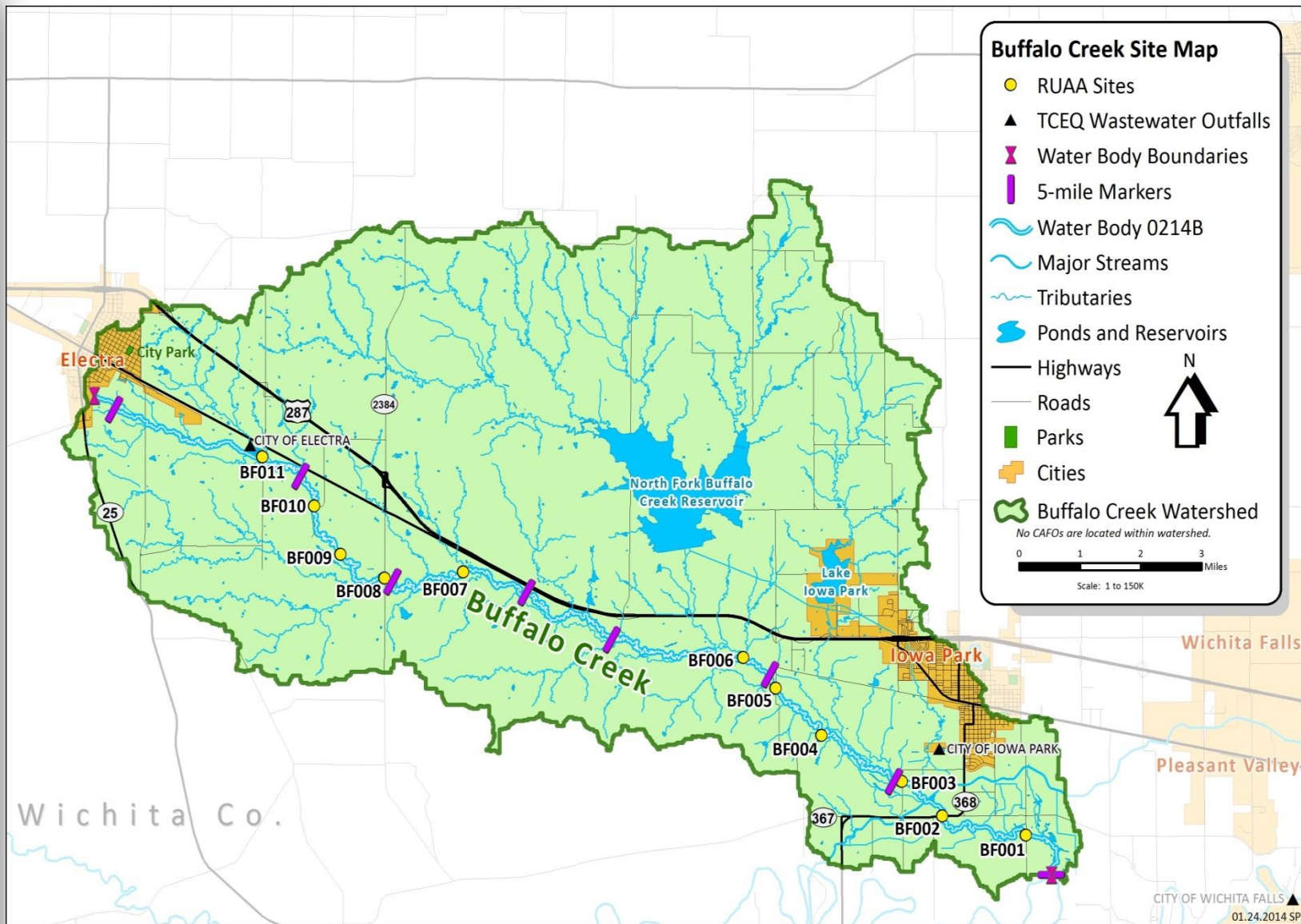
- Buffalo Creek is not meeting the water quality standard for primary contact recreation
 - Due to elevated levels of bacteria, *E. coli*.
 - Requires action to meet the standards that are set by the State of Texas and EPA.
 - Geometric mean should not exceed 126 cfu/ 100ml



Impaired Stream Segments

- Buffalo Creek (0214B)
 - 2010 Texas Water Quality 303(d) List
 - Bacteria
 - Current Geometric mean = 233 cfu/ 100mL





TCEQ ID	Site ID	Site Description	Latitude	Longitude	Distance from Previous Site (mi)¹	Distance from Confluence (mi)¹	Distance from Upper Reach (mi)¹	Access
10097	BF001	Buffalo Creek at Bell Rd south of Iowa Park, east of road	33.921748	-98.654205	-	1.18	33.94	Public*
	BF002	Buffalo Creek at FM 367 south of Iowa Park, south of road	33.926077	-98.678127	2.37	3.55	31.57	Public*
16036	BF003	Buffalo Creek at Coleman Park Rd south of Iowa Park, east of road	33.933848	-98.689599	1.19	4.74	30.38	Public*
	BF004	Buffalo Creek 1.83 river miles east of Old Electra Rd	33.944218	-98.712534	2.86	7.60	27.52	Private
	BF005	Buffalo Creek at Old Electra Rd southwest of Iowa Park, east of road	33.954803	-98.725636	1.83	9.43	25.69	Public*
	BF006	Buffalo Creek 1.06 river miles west of Old Electra Rd, near railroad	33.961670	-98.734895	1.06	10.49	24.63	Private
	BF007	Buffalo Creek 3.47 river miles east of FM 2384	33.980992	-98.814977	10.87	21.36	13.76	Private
	BF008	Buffalo Creek at FM 2384, west of road	33.979637	-98.837430	3.47	24.83	10.29	Public*
	BF009	Buffalo Creek 2.02 river miles west of FM 2384	33.985000	-98.849970	2.02	26.85	8.27	Private
	BF010	Buffalo Creek at Old Gun Club Rd southeast of Electra	33.995800	-98.857500	1.61	28.46	6.66	Private
	BF011	Buffalo Creek at Midway Church Rd southeast of Electra WWTF, east of road	34.006860	-98.872330	2.56	31.02	4.10	Public*

* indicates that the site was publically accessible at a road crossing but that further access was limited by fencing of private property.

¹Distances were digitally estimated using the measuring tool in ArcGIS 9.3 with the 2010 NAIP 1-m DOQQs and the NHD stream layer as reference guides.

Purpose of RUAA

- Collect information that will:
 1. Confirm or deny primary contact recreation
 2. Provide evidence to support a change in recreational use category of Buffalo Creek
- Recreational Use Categories:
 1. Primary Contact Recreation
 2. Secondary Contact Recreation 1
 3. Secondary Contact Recreation 2
 4. Noncontact Recreation



Survey Dates for Buffalo Creek

- First RUAA Survey
 - Conducted June 8, 2013
- Second RUAA Survey
 - Conducted July 7, 2013



Findings for First RUAA Survey

- Conducted June 8, 2013
- Summary
 - Limited water for recreation
 - No direct recreation observed
 - Limited public access, mostly private property



Buffalo Creek Photographs



Upstream at BF001



Downstream at BF001

Buffalo Creek Photographs



Snake Slides at BF002



Water snake at BF002

Buffalo Creek Photographs



Log Obstruction at BF004



Downstream at BF004

Buffalo Creek Photographs



Upstream at BF006



Downstream at BF006

Buffalo Creek Photographs



**Algae and Log Obstruction at
BF009**



Fox tracks at BF009

Buffalo Creek Photographs



Right Bank at BF011



Left Bank at BF011



Findings for Second RUAA Survey

- Conducted July 7, 2013
- Summary
 - Limited water for recreation
 - No direct recreation observed
 - Limited public access, mostly private property



Buffalo Creek Photographs



Upstream at BF001



Downstream at BF001

Buffalo Creek Photographs



Raccoon Tracks at BF003



Fireworks at BF003

Buffalo Creek Photographs



Upstream at BF006



Downstream at BF006

Buffalo Creek Photographs



Bird Nest at BF008



Obstruction at BF008

Buffalo Creek Photographs



Right Bank at BF010



Left Bank at BF010

Buffalo Creek Photographs



Downstream at BF011



Upstream at BF011

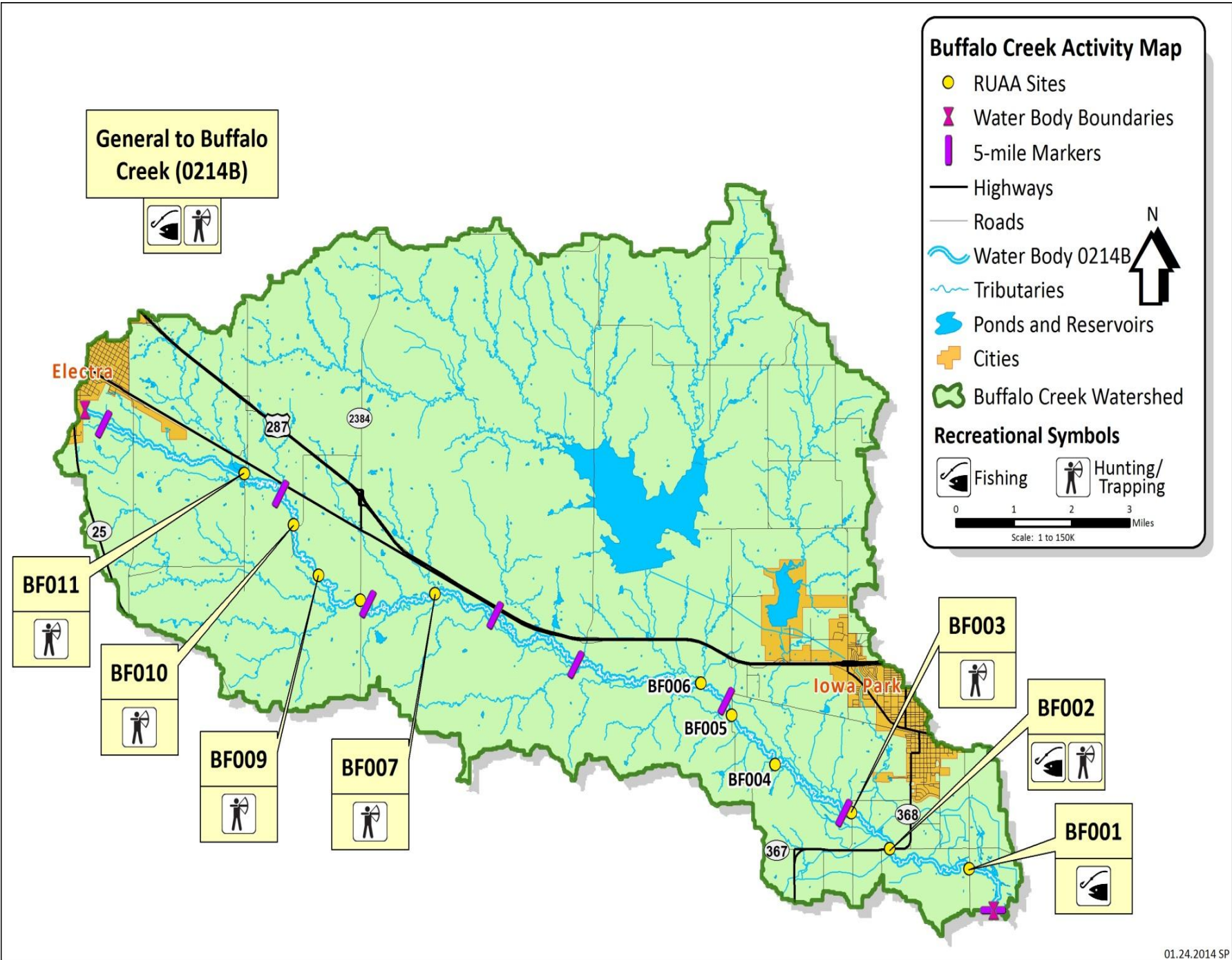
Summary of Activity

Site Name	Swimming	Adult Wading	Children Wading	Hunting	Fishing	Boating/Canoeing
BF001	0,0,0	0,0,0	0,0,0	0,0,0	1,0,0	0,0,0
BF002	0,0,0	0,0,0	0,0,0	1,1,2	1,1,2	0,0,0
BF003	0,0,0	0,0,0	0,0,0	0,0,1	0,0,0	0,0,0
BF004						
BF005						
BF006						
BF007	0,0,0	0,0,0	0,0,0	1,0,0	0,0,0	0,0,0
BF008						
BF009	0,0,0	0,0,0	0,0,0	1,1,1	0,0,0	0,0,0
BF010	0,0,0	0,0,0	0,0,0	*	0,0,0	0,0,0
BF011	0,0,0	0,0,0	0,0,0	*	0,0,0	0,0,0
General	0,0,0	0,0,0	0,0,0	1,0,0	1,0,1	0,0,0
Totals	0,0,0	0,0,0	0,0,0	4,2,4	3,1,2	0,0,0



An * indicates recreation at multiple sites from one interview forms.





Next Steps

- Public Comment Period
 - **Open from June 10 – July 10, 2014**
 - Please take this opportunity to review the Red River RUAA Report
 - Provide Comments
 - Report can be viewed:
<http://www.tsswcb.texas.gov/en/managementprogram/ruaabuffalo>



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Questions?

Project Website:

<http://www.tsswcb.texas.gov/en/managementprogram/ruaabuffalo>

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